

May, 2017

3M™ Adhesive Transfer Tape 7965MP

Product Description

3M™ High Performance Acrylic Adhesive 200MP is a popular choice for graphic attachment and general industrial joining applications. It provides outstanding adhesion to metal and high surface energy plastics. This adhesive provides some initial repositionability for placement accuracy when bonding to plastics. It also performs well after exposure to humidity and hot/cold cycles.

Product Features

- Up to 400°F short-term heat resistance
- Excellent solvent resistance
- Excellent shear strength to resist slippage and edge lifting



Technical Information Note

The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Typical Physical Properties

Property	Values		Notes
Adhesive Thickness	0.13 mm	5.2 mil	The thickness listed is based on a calculation from manufacturing controlled adhesive coat weights using a density of 1.012 g/cc. While past data pages have listed nominal thicknesses, the coat weight (and theoretical caliper) has not changed.
Primary Liner Type	78# Polycoated Kraft Paper (PCK)		Inner liner is primary(stays with die-cut part); Outer liner is secondary (removed first)
Primary Liner Color	Tan		
Secondary Liner Type	83# Polycoated Kraft Paper (PCK)		Inner liner is primary(stays with die-cut part); Outer liner is secondary (removed first)
Secondary Liner Color	Tan		
Primary Liner Thickness	0.15 mm	5.7 mil	
Secondary Liner Thickness	0.11 mm	4.2 mil	

Typical Performance Characteristics

90° Peel Adhesion		Dwell/Cure Time	Substrate
6 N/cm	55 oz/in	15 min ± 5 min	Stainless Steel
11.8 N/cm	108 oz/in	72 hr @ Room Temperature	Stainless Steel
20 N/cm	183 oz/in	72 hr @ 158°F(70°C)	Stainless Steel
9.2 N/cm	84 oz/in	72 hr @ Room Temperature	Aluminum
3 N/cm	27 oz/in	72 hr @ Room Temperature	ABS
8.9 N/cm	81 oz/in	72 hr @ Room Temperature	Acrylic (PMMA)
12.3 N/cm	112 oz/in	72 hr @ Room Temperature	Glass
5 N/cm	46 oz/in	72 hr @ Room Temperature	Polyvinyl chloride (PVC)

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Typical Performance Characteristics (continued)

90° Peel Adhesion		Dwell/Cure Time	Substrate
9.6 N/cm	88 oz/in	72 hr @ Room Temperature	Polycarbonate (PC)

Property: 90° Peel Adhesion
Method: ASTM D3330
Backing: Aluminum Foil

Static Shear	Test Condition
10000+ min	1000 g load @ Room Temperature
10000+ min	1000 g load @ 70°C (158°F)
10000+ min	1000 g load @ 93°C (200°F)
10000+ min	500 g load @ 177°C (350°F)
2284 min	400 g load @ 232°C (450°F)
10000+ min	200 g load @ 232°C (450°F)

Property: Static Shear
notes: 1in x 1in size; test terminated after 10,000 minutes

Property	Values		Method	Substrate	Notes	Dwell/Cure Time	Backing
Tensile Lap Shear – Peak Load	174 lb		ASTM D1002	#6061 Aluminum	0.5 in²		
180° Peel Adhesion	15.1 N/cm	139 oz/in	ASTM D3330	Stainless Steel		72 hr @ Room Temperature	Aluminum Foil

Electrical and Thermal Properties

Property	Values		Method	Test Condition	Notes
Breakdown Voltage	3000 V				
Insulation Resistance	>1.3 × 10^15 Ω		Mil-I-46058C	test voltage = 100 VDC	
Dielectric Constant	3.32		ASTM D150	1 KHz, Room Temperature	
Dissipation Factor	0.011				

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Electrical and Thermal Properties (continued)

Property	Values		Method	Test Condition	Notes
Dielectric Strength	674 V/mil		ASTM D149	500 vac, rms[60 hz/sec]	
Thermal Conductivity	0.19 W/m/K	1.24 (btu-in)/(h-ft ² -°F)	ASTM C518	@ 109°F(43°C)	results listed are at 109°F
Coefficient of Thermal Expansion	527 ppm/°C				

Environmental Performance

Humidity Resistance – High humidity has a minimal effect on adhesive performance. Bond strength shows no significant reduction after exposure for 7 days at 90°F (32°C) and 90% relative humidity.

UV Resistance – When properly applied, nameplates and decorative trim parts are not adversely affected by outdoor exposure.

Water Resistance – Immersion in water has no appreciable effect on the bond strength. After 100 hours at room temperature, the high bond strength is maintained.

Temperature Cycling Resistance – High bond strength is maintained after cycling four times through:

4 hours at 158°F (70°C)

4 hours at -20°F (-29°C)

4 hours at 73°F (22°C)

Chemical Resistance – When properly applied, nameplate and decorative trim parts will hold securely after exposure to numerous chemicals including oil, mild acids and alkalis.

Bond Build-up: The bond strength of 3M™ High Performance Acrylic Adhesive 200MP increases as a function of time and temperature

Temperature/Heat Resistance: 3M™ High Performance Acrylic Adhesive 200MP is usable for short periods (minutes, hours) at temperatures up to 400°F (204°C) and for intermittent longer periods (days, weeks) up to 300°F (149°C).

Lower Temperature Service Limit: The glass transition temperature for 3M™ High Performance Acrylic Adhesive 200MP is -31°F (-35°C). Many applications survive below this temperature (factors affecting successful applications include: materials being bonded, dwell at RT before cold exposure, and stress below the TG[i.e.expansion/contraction stresses, impact]). Optimum conditions are: bonding high surface energy materials, longer time at RT before cold exposure, and little or no stress below the TG. The lowest service temperature is -40°F (-40°C).

Handling/Application Information

Application Ideas

- Long term bonding of graphic nameplates and overlays (“subsurface” printed polycarbonate or polyester) to metal and high surface energy plastics in the aerospace, medical and industrial equipment, automotive, appliance and electronics markets.
- Bonding metal nameplates and rating plates in the aerospace, medical and industrial equipment, automotive, appliance and electronics markets.
- Bonding graphic overlays for membrane switches and for bonding the complete switch to the equipment surface.
- High speed processing of parts in the medical, telecommunications and electronics markets (medical components, durable labels, and flexible circuits).
- Lamination to industrial foams for rotary die-cutting of small gaskets for industrial and electronics markets.

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References

1. 3m.com Product Page
Url: http://www.3m.com/3M/en_US/company-us/all-3m-products/~/3M-Adhesive-Transfer-Tape-Double-Lined-7965MP?N=5002385+3293242521&rt=rud
2. Safety Data Sheet
Url: https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=7965MP

ISO Statement

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001 standards.

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TSCA: This product is defined as an article under the Toxic Substances Control Act and therefore, it is exempt from inventory listing requirements MSDS: 3M has not prepared a MSDS for this product which is not subjected to the MSDS requirements of the Occupational Safety and Health Administration's Hazard Communication Standard, 29 C.F.R.1910.1200(b)(6)(v). When used under reasonable conditions or in accordance with the 3M directions for use, this product should not present a health and safety hazard. However, use or processing of the product in a manner not in accordance with the directions for use may affect its performance and present potential health and safety hazards. UL: These products have been recognized by Underwriters Laboratories, Inc. under Standard UL 969, Marking and Labeling Systems Materials Component. For more information on the UL Certification, please visit the website at <http://www.3M.com/converter>, select UL Recognized Materials, then select the specific product area. Military: Meets MIL-P-19834 Note: One of 3M's core values is to respect our social and physical environment. 3M is committed to comply with ever-changing, global, regulatory and consumer environmental, health, and safety (EHS) requirements. As a service to our customers, 3M is providing information on the regulatory status of many 3M products. Further regulation information including that for OSHA, USCPSP, FDA, California Proposition 65, REACH and RoHS, can be found at [3M.com/regs](http://www.3m.com/regs).

Technical Information

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